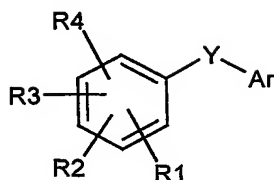


CLAIMS

## 1. Formula (I) compounds



in which

the various  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$ , which can be the same or different, are H, OH,  $OPO_3H_2$  or  $OCH_2OPO_3H_2$  and their disodium salt, OMe,  $OCH_2O$ ,  $NO_2$ , F, Cl, Br;

$-R_1-R_2-$  can also be together:  $-CR_8=CR_9-X-$

Y is a group selected from

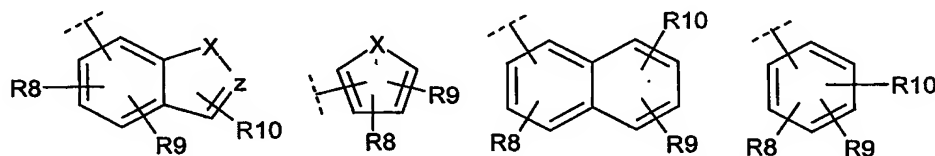


$\text{wavy line} : \text{cis o trans}$

$R_5$  and  $R_6$ , which can be the same or different, are H or halogen;

$R_7$  is H, OMe,  $SO_2Ph$ ;

Ar is a group selected from:



$R_8$ ,  $R_9$  and  $R_{10}$ , which can be the same or different, are H, OH,  $OPO_3H_2$  or  $OCH_2OPO_3H_2$  and their disodium salt,  $OR_{11}$ ,  $OCH_2O$ ,  $NH_2$ ,  $NHR_{11}$ ,  $NO_2$ , alkyl ( $C_1-C_4$ ),  $C_6H_5$ ,  $C_5H_4N$  or halogen;

$R_{11}$  is  $C_1-C_4$  alkyl or acyl, aminoacids residue;

X is O, S, N, NR<sub>12</sub>;

R<sub>12</sub> is H, CH<sub>3</sub>, CH<sub>2</sub>Ph;

Z is CH, N;

with the proviso that the formula (I) compound is not combretastatin A-1, combretastatin A-2, combretastatin A-4, and their disodium phosphates derivatives and with the exclusion of the following compounds:

2-phenyl-6-*trans*-styryl-benzo[b]furan;

2,3-diphenyl-6-*trans*-styryl-benzo[b]furan;

2-phenyl-6-(4-methoxy)-*trans*-styryl-benzo[b]furan;

2-phenyl-6-(3,4-dimethoxy)-*trans*-styryl-benzo[b]furan;

2-phenyl-6-(3,4,5-trimethoxy)-*trans*-styryl-benzo[b]furan;

2-phenyl-6-(3,4-methylenedioxy)-*trans*-styryl-benzo[b]furan;

2,3-diphenyl-6-(4-methoxy)-*trans*-styryl-benzo[b]furan;

2-phenyl-5-*trans*-styryl-benzo[b]thiophene;

2-phenyl-5-(4-methoxy)-*trans*-styryl-benzo[b]thiophene;

2-phenyl-5-(3,4-methylenedioxy)-*trans*-styryl-benzo[b]thiophene;

2-phenyl-6-*trans*-styryl-benzo[b]thiophene;

2-phenyl-6-(4-methoxy)-*trans*-styryl-benzo[b]thiophene;

2-phenyl-6-(4-chloro)-*trans*-styryl-benzo[b]thiophene;

Piceatannol;

1-(3-furanyl)-2-(3,4,5-trimethoxyphenyl)ethene;

1-(3-thiophenyl)-2-(3,4,5-trimethoxyphenyl)ethene;

1-(2-furanyl)-2-(3,4,5-trimethoxyphenyl)ethene;

and with the proviso that

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>- R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is not methoxy;

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>- R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 2-chloro, R<sub>10</sub> is not 4-methoxy;

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, at least one of R<sub>8</sub>-R<sub>10</sub> is not hydrogen;

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>- R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is

none of 4-chloro, 4-bromo, 4-nitro, 4-hydroxy, 4-acetyl, 4-ethoxy, 4-C<sub>1</sub>-C<sub>4</sub> alkyl;

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-nitro or 4-amino, R<sub>10</sub> is none of 3-chloro, 3-methoxy, 3-methyl;

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 3-nitro or 3-amino, R<sub>10</sub> is none of 3-chloro, 3-methoxy, 3-methyl;

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 2,3,4-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is not 4-methoxy;

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, at least one of R<sub>8</sub> is hydrogen, R<sub>9</sub> is 3-methoxy, R<sub>10</sub> is not 5-methoxy;

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub>-R<sub>10</sub> are not methoxy;

- when R<sub>1</sub> and R<sub>2</sub> are hydrogen and R<sub>3</sub>-R<sub>4</sub> are 3,4-dimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is not 4-methoxy;

- when R<sub>1</sub> and R<sub>2</sub> are hydrogen and R<sub>3</sub>-R<sub>4</sub> are 3,4-dimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub>-R<sub>10</sub> are not 3,5-dimethoxy;

- when R<sub>1</sub> and R<sub>2</sub> are hydrogen and R<sub>3</sub>-R<sub>4</sub> are 3,4-dimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, at least one of R<sub>8</sub>-R<sub>10</sub> is not hydrogen;

- when R<sub>1</sub> and R<sub>2</sub> are hydrogen and R<sub>3</sub>-R<sub>4</sub> are 3,5-methoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is not 4-methoxy;

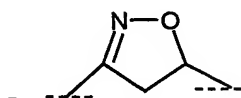
- when R<sub>1</sub> and R<sub>2</sub> are hydrogen and R<sub>3</sub>-R<sub>4</sub> are 3,5-methoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is not 4-acetyl;

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is not pyridyl;

- when  $R_1$  is hydrogen and  $R_2$ -  $R_4$  are 3,4,5-trimethoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is 3-amino,  $R_{10}$  is 4-NHR<sub>11</sub>,  $R_{11}$  is not the residue of serine;
- when  $R_1$  is hydrogen and  $R_2$ -  $R_4$  are 3,4,5-trimethoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is 3-amino,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  is hydrogen and  $R_2$ -  $R_4$  are 3,4,5-trimethoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is 3-amino,  $R_{10}$  is not a 4-alkyloxy group having from 1 to 3 carbon atoms, or a 4-alkyl group having from 1 to 4 carbon atoms, or a halogen atom
- when  $R_1$  is hydrogen and  $R_2$ - $R_3$  are 3,4-methylenedioxy,  $R_4$  is 5-methoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is 3-amino,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  is hydrogen and  $R_2$ - $R_4$  are 2,3,4-trimethoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is 3-amino,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  is hydrogen and  $R_2$ - $R_4$  are 3,4,5-trimethoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is NHR<sub>11</sub>,  $R_{11}$  is the residue of serine,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  is hydrogen and  $R_2$ - $R_3$  are 3,4-methylenedioxy,  $R_4$  is 4-methoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is NHR<sub>11</sub>,  $R_{11}$  is the residue of the aminoacid cysteine, glycine, phenylalanine, serine, triptophan, tyrosine, valine,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  is hydrogen and  $R_2$ - $R_3$  are 3,4-methylenedioxy,  $R_4$  is 4-methoxy, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is NO<sub>2</sub> or NH<sub>2</sub>,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  is hydrogen and  $R_2$ - $R_4$  are 3,4,5-trimethoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl, at least one of  $R_8$  - $R_{10}$  is not hydrogen;
- when  $R_1$  is hydrogen and  $R_2$ - $R_4$  are 3,4,5-trimethoxy, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is 4-methoxy,  $R_{10}$  is not 3-fluoro;

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-methyl, R<sub>10</sub> is not 3-fluoro or 3-hydroxy;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-methoxy, R<sub>10</sub> is not 3-methoxy;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is 3-fluoro, R<sub>9</sub> is 4-methoxy, R<sub>10</sub> is not 2- or 5-fluoro;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-methoxy, R<sub>10</sub> is not 3- hydroxy or 3-amino;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-methoxy, R<sub>10</sub> is not 3-fluoro or 3-bromo;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is not 4-hydroxy;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 3-methyl, R<sub>10</sub> is not 4-methyl;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-methoxy, R<sub>10</sub> is not 3-hydroxy;
- when R<sub>1</sub>- R<sub>2</sub> are hydrogen and R<sub>3</sub>-R<sub>4</sub> are 3,5-dihydroxy, Y is *trans* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 3-hydroxy, R<sub>10</sub> is not 5-hydroxy;
- when R<sub>1</sub>-R<sub>3</sub> are hydrogen, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> and R<sub>10</sub> are 3,4-dimethyl, and R<sub>4</sub> is not 4-methoxy;
- when R<sub>1</sub>-R<sub>2</sub> are hydrogen, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> and R<sub>10</sub> are 3,4-dimethyl, R<sub>4</sub> is 4-methoxy, R<sub>3</sub> is not 3- fluoro or 3-bromo or 3-nitro or 3-hydroxy;

- when R<sub>1</sub>-R<sub>2</sub> are hydrogen, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub>-R<sub>10</sub> are 3,4,5-triethoxy, R<sub>4</sub> is 4-methoxy, R<sub>3</sub> is not 3-fluoro or 3-chloro or 3-bromo or 3-hydroxy;
- when R<sub>1</sub>-R<sub>2</sub> are hydrogen, R<sub>4</sub> is 4-methoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub>-R<sub>9</sub> are 4,5-dimethoxy, R<sub>10</sub> is 3-hydroxy, R<sub>3</sub> is not 3-fluoro or 3-hydroxy;
- when R<sub>1</sub>-R<sub>2</sub> are hydrogen, R<sub>4</sub> is 4-methoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub>-R<sub>9</sub> are 4,5-dimethoxy, R<sub>10</sub> is 3-methoxy, R<sub>3</sub> is not 3-fluoro;
- when R<sub>1</sub> is hydrogen, R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is 2-naphthyl, at least one of R<sub>8</sub>- R<sub>10</sub> is not hydrogen;
- when R<sub>1</sub> and R<sub>2</sub> are hydrogen, R<sub>3</sub> is 3-hydroxy, R<sub>4</sub> is 4-methoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is 2-naphthyl, at least one of R<sub>8</sub>- R<sub>10</sub> is not hydrogen;
- when R<sub>1</sub> is hydrogen, R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is



Ar is indolyl, wherein at least one of R<sub>8</sub>-R<sub>10</sub> is different from hydrogen; their enantiomers, diastereoisomers, the respective mixtures and their pharmaceutically acceptable salts.

2. Compound according to claim 1, selected from the group consisting of:

2-methoxy-5-[3-methoxy-5-(3,4,5-trimethoxy-phenyl)-4,5-dihydro-4-isoxazolyl]-phenol;

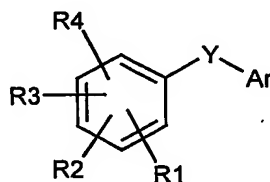
2-methoxy-5-[3-methoxy-4-(3,4,5-trimethoxy-phenyl)-4,5-dihydro-5-isoxazolyl]-phenol;

5-[3-benzenesulphonyl-4-(3,4,5-trimethoxy-phenyl)-4,5-dihydro-4-isoxazolyl]-2-methoxy-phenol;

5-[3-benzenesulphonyl-5-(3,4,5-trimethoxy-phenyl)-4,5-dihydro-5-isoxazolyl]-2-methoxy-phenol;  
2-methoxy-5-[3-(3,4,5-trimethoxy-phenyl)-4,5-dihydro-5-isoxazolyl]-phenol;  
2-methoxy-5-[5-(3,4,5-trimethoxy-phenyl)-4,5-dihydro-3-isoxazolyl]-phenol;  
2-methoxy-5-[5-(3,4,5-trimethoxy-phenyl)-3-isoxazole]-phenol;  
cis-6-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzo[b]thiophen-4-ol;  
trans-6-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzo[b]thio-phen-4-ol;  
cis-4-methoxy-6-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzo[b]thiophene;  
trans-4-methoxy-6-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzo[b]thiophene;  
cis-6-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzofuran-4-ol;  
trans-6-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzofuran-4-ol;  
cis-4-methoxy-6-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzofuran;  
trans-4-methoxy-6-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzofuran;  
cis-5-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzo[b]thiophen-7-ol;  
trans-5-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzo[b]thiophen-7-ol;  
cis-5-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzofuran-7-ol ;  
trans-5-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-benzofuran-7-ol ;  
cis-1-methoxy-3-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-naphthalene;  
methoxy-3-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-naphthalene;  
cis-7-methoxy-1-methyl-5-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-1H-indazole;  
trans-7-methoxy-1-methyl-5-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-1H-indazole;  
2-nitro-5-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-thiophene;  
2-nitro-5-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-furan;  
cis-3-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-naphthalen-1-ol;  
trans-3-[2-(3,4,5-trimethoxy-phenyl)-vinyl]-naphthalen-1-ol;  
disodium 6[(Z)-2-(3,4,5-trimethoxy-phenyl)ethenyl]-1-benzo-thiophen-4-ol 4-O-phosphate;  
disodium 6[(Z)-2-(3,4,5-trimethoxyphenyl)ethenyl]-1-benzo-furan-4-ol 4-O-phosphate;  
6-[(Z)-2-(7-methoxy-1,3-benzodioxol-5-yl)vinyl]-1-benzothiophene-4-ol;

6-[(E)-2-(7-methoxy-1,3-benzodioxol-5-yl)vinyl]-1-benzothiophene-4-ol;  
 6[(Z)-2-(3-methoxy-4,5-metilendioxy-phenil-1-yl)-vinyl]-1-benzofuran-4-ol;  
 6[(E)-2-(3-methoxy-4,5-metilendioxy-phenil-1-yl)-vinyl]-1-benzofuran-4-ol;  
 disodium 6[(Z)-2-(3,4,5-trimethoxy-phenyl)ethenyl]-1-benzo-thiophen-4-ol 4-O-methyloxyphosphate;  
 disodium 6[(Z)-2-(3,4,5-trimethoxyphenyl)ethenyl]-1-benzo-furan-4-ol 4-O- methyloxyphosphate;  
 6-[(Z)-2-(7-methoxy-1,3-benzodioxol-5-yl)vinyl]-1-benzothiophene-4-ol;  
 6-[(E)-2-(7-methoxy-1,3-benzodioxol-5-yl)vinyl]-1-benzothiophene-4-ol .  
 6[(Z)-2-(3-methoxy-4,5-metilendioxy-phenil-1-yl)-vinyl]-1-benzofuran-4-ol;  
 6[(E)-2-(3-methoxy-4,5-methylenedioxy-phenil-1-yl)-vinyl]-1-benzofuran-4-ol;  
 disodium 6[(Z)-2-(3,4,5-trimethoxy-phenyl)ethenyl]-1-benzo-thiophen-4-ol 4-O-methyloxyphosphate;  
 disodium 6[(Z)-2-(3,4,5-trimethoxyphenyl)ethenyl]-1-benzo-furan-4-ol 4-O- methyloxyphosphate;  
 6-[(Z)-2-(7-methoxy-1,3-benzodioxol-5-yl)vinyl]-1-benzothiophene-4-ol;  
 cis-2-Methoxy-5-[2-(4-methoxy-benzofuran-6-yl)-vinyl]-phenol;  
 cis-2-Methoxy-5-[2-(7-methoxy-benzofuran-5-yl)-vinyl]-phenol;  
 cis-2-Methoxy-5-[2-(4-methoxy-benzo[b]thiophen-6-yl)-vinyl]-phenol;  
 cis-6-[2-(3,5-dimethoxy-phenyl)-vinyl]-benzo[b]thiophen-4-ol;  
 cis-5-[2-(3,5-dimethoxy-phenyl)-vinyl]-benzofuran-7-ol;  
 cis-6-[2-(3,5-dimethoxy-phenyl)-vinyl]-benzofuran-4-ol;  
 their enantiomers, diastereoisomers, the respective mixtures and their pharmaceutically acceptable salts.

### 3. Use of formula (I) compounds



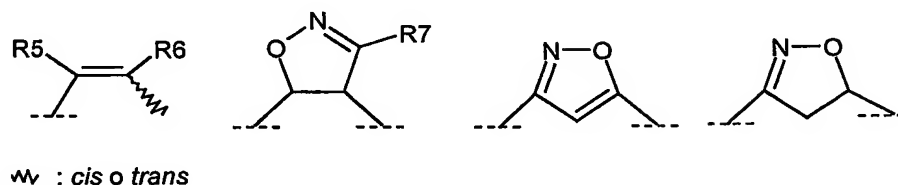


in which

the various  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$ , which can be the same or different, are H, OH,  $OPO_3H_2$  or  $OCH_2OPO_3H_2$  and their disodium salt, OMe,  $OCH_2O$ ,  $NO_2$ , F, Cl, Br;

$-R_1-R_2-$  can also be together:  $-CR_8=CR_9-X-$

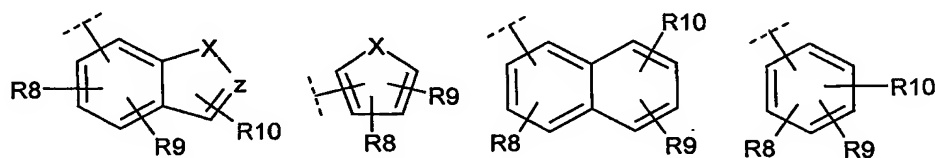
Y is a group selected from



$R_5$  and  $R_6$ , which can be the same or different, are H or halogen;

$R_7$  is H, OMe,  $SO_2Ph$ ;

Ar is a group selected from:



$R_8$ ,  $R_9$  and  $R_{10}$ , which can be the same or different, are H, OH,  $OPO_3H_2$  or  $OCH_2OPO_3H_2$  and their disodium salt,  $OR_{11}$ ,  $OCH_2O$ ,  $NH_2$ ,  $NHR_{11}$ ,  $NO_2$ , alkyl ( $C_1-C_4$ ),  $C_6H_5$ ,  $C_5H_4N$  or halogen;

$R_{11}$  is  $C_1-C_4$  alkyl or acyl, aminoacids residue;

X is O, S, N,  $NR_{12}$ ;

$R_{12}$  is H,  $CH_3$ ,  $CH_2Ph$ ;

Z is CH, N;

with the proviso that the formula (I) compound is not combretastatin A-1, combretastatin A-2, combretastatin A-4, and their disodium phosphates derivatives and with the exclusion of the following compounds: Piceatannol;

1-(3-furanyl)-2-(3,4,5-trimethoxyphenyl)ethene;

1-(3-thiophenyl)-2-(3,4,5-trimethoxyphenyl)ethene;

1-(2-furanyl)-2-(3,4,5-trimethoxyphenyl)ethene;

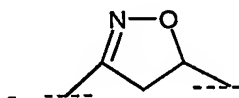
and with the proviso that

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>- R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is not methoxy;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>- R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 2-chloro, R<sub>10</sub> is not 4-methoxy;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, at least one of R<sub>8</sub>-R<sub>10</sub> is not hydrogen;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>- R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is none of 4-chloro, 4-bromo, 4-nitro, 4-hydroxy, 4-acetyl, 4-ethoxy, 4-C<sub>1</sub>-C<sub>4</sub> alkyl;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-nitro or 4-amino, R<sub>10</sub> is none of 3-chloro, 3-methoxy, 3-methyl;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 3-nitro or 3-amino, R<sub>10</sub> is none of 3-chloro, 3-methoxy, 3-methyl;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>- R<sub>4</sub> are 2,3,4-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is not 4-methoxy;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, at least one of R<sub>8</sub> is hydrogen, R<sub>9</sub> is 3-methoxy, R<sub>10</sub> is not 5-methoxy;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub>-R<sub>10</sub> are not methoxy;
- when R<sub>1</sub> and R<sub>2</sub> are hydrogen and R<sub>3</sub>-R<sub>4</sub> are 3,4-dimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is not 4-methoxy;
- when R<sub>1</sub> and R<sub>2</sub> are hydrogen and R<sub>3</sub>-R<sub>4</sub> are 3,4-dimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub>-R<sub>10</sub> are not 3,5-dimethoxy;
- when R<sub>1</sub> and R<sub>2</sub> are hydrogen and R<sub>3</sub>-R<sub>4</sub> are 3,4-dimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, at least one of R<sub>8</sub>-R<sub>10</sub> is not hydrogen;

- when  $R_1$  and  $R_2$  are hydrogen and  $R_3$ - $R_4$  are 3,5-methoxy, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  and  $R_9$  are hydrogen,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  and  $R_2$  are hydrogen and  $R_3$ - $R_4$  are 3,5-methoxy, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  and  $R_9$  are hydrogen,  $R_{10}$  is not 4-acetyl;
- when  $R_1$  is hydrogen and  $R_2$ -  $R_4$  are 3,4,5-trimethoxy, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is not pyridyl;
- when  $R_1$  is hydrogen and  $R_2$ -  $R_4$  are 3,4,5-trimethoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is 3-amino,  $R_{10}$  is 4-NHR<sub>11</sub>,  $R_{11}$  is not the residue of serine;
- when  $R_1$  is hydrogen and  $R_2$ -  $R_4$  are 3,4,5-trimethoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is 3-amino,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  is hydrogen and  $R_2$ -  $R_4$  are 3,4,5-trimethoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is 3-amino,  $R_{10}$  is not a 4-alkyloxy group having from 1 to 3 carbon atoms, or a 4-alkyl group having from 1 to 4 carbon atoms, or a halogen atom
- when  $R_1$  is hydrogen and  $R_2$ - $R_3$  are 3,4-methylenedioxy,  $R_4$  is 5-methoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is 3-amino,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  is hydrogen and  $R_2$ - $R_4$  are 2,3,4-trimethoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is 3-amino,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  is hydrogen and  $R_2$ - $R_4$  are 3,4,5-trimethoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is NHR<sub>11</sub>,  $R_{11}$  is the residue of serine,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  is hydrogen and  $R_2$ - $R_3$  are 3,4-methylenedioxy,  $R_4$  is 4-methoxy, Y is *cis* double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is NHR<sub>11</sub>,  $R_{11}$  is the residue of the aminoacid cysteine, glycine, phenylalanine, serine, triptophan, tyrosine, valine,  $R_{10}$  is not 4-methoxy;
- when  $R_1$  is hydrogen and  $R_2$ - $R_3$  are 3,4-methylenedioxy,  $R_4$  is 4-methoxy, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  is NO<sub>2</sub> or NH<sub>2</sub>,  $R_{10}$  is not 4-methoxy;

- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, at least one of R<sub>8</sub>-R<sub>10</sub> is not hydrogen;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-methoxy, R<sub>10</sub> is not 3-fluoro;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is a double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-methyl, R<sub>10</sub> is not 3-fluoro or 3-hydroxy;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-methoxy, R<sub>10</sub> is not 3-methoxy;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is 3-fluoro, R<sub>9</sub> is 4-methoxy, R<sub>10</sub> is not 2- or 5-fluoro;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-methoxy, R<sub>10</sub> is not 3- hydroxy or 3-amino;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-methoxy, R<sub>10</sub> is not 3-fluoro or 3-bromo;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> and R<sub>9</sub> are hydrogen, R<sub>10</sub> is not 4-hydroxy;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 3-methyl, R<sub>10</sub> is not 4-methyl;
- when R<sub>1</sub> is hydrogen and R<sub>2</sub>-R<sub>4</sub> are 3,4,5-trimethoxy, Y is *cis* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 4-methoxy, R<sub>10</sub> is not 3-hydroxy;
- when R<sub>1</sub>- R<sub>2</sub> are hydrogen and R<sub>3</sub>-R<sub>4</sub> are 3,5-dihydroxy, Y is *trans* double bond, R<sub>5</sub> and R<sub>6</sub> are H, Ar is phenyl, R<sub>8</sub> is hydrogen, R<sub>9</sub> is 3-hydroxy, R<sub>10</sub> is not 5-hydroxy;

- when  $R_1$ - $R_3$  are hydrogen, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  and  $R_{10}$  are 3,4-dimethyl, and  $R_4$  is not 4-methoxy;
  - when  $R_1$ - $R_2$  are hydrogen, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$  is hydrogen,  $R_9$  and  $R_{10}$  are 3,4-dimethyl,  $R_4$  is 4-methoxy,  $R_3$  is not 3-fluoro or 3-bromo or 3-nitro or 3-hydroxy;
  - when  $R_1$ - $R_2$  are hydrogen, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$ - $R_{10}$  are 3,4,5-triethoxy,  $R_4$  is 4-methoxy,  $R_3$  is not 3-fluoro or 3-chloro or 3-bromo or 3-hydroxy;
  - when  $R_1$ - $R_2$  are hydrogen,  $R_4$  is 4-methoxy, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$ - $R_9$  are 4,5-dimethoxy,  $R_{10}$  is 3-hydroxy,  $R_3$  is not 3-fluoro or 3-hydroxy;
  - when  $R_1$ - $R_2$  are hydrogen,  $R_4$  is 4-methoxy, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is phenyl,  $R_8$ - $R_9$  are 4,5-dimethoxy,  $R_{10}$  is 3-methoxy,  $R_3$  is not 3-fluoro;
  - when  $R_1$  is hydrogen,  $R_2$ - $R_4$  are 3,4,5-trimethoxy, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is 2-naphthyl, at least one of  $R_8$ - $R_{10}$  is not hydrogen;
  - when  $R_1$  and  $R_2$  are hydrogen,  $R_3$  is 3-hydroxy,  $R_4$  is 4-methoxy, Y is a double bond,  $R_5$  and  $R_6$  are H, Ar is 2-naphthyl, at least one of  $R_8$ - $R_{10}$  is not hydrogen;
  - when  $R_1$  is hydrogen,  $R_2$ - $R_4$  are 3,4,5-trimethoxy,
- Y is

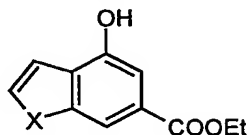


Ar is indolyl, wherein at least one of  $R_8$ - $R_{10}$  is different from hydrogen; their enantiomers, diastereoisomers, the respective mixtures and their pharmaceutically acceptable salts as medicaments.

4. Use according to claim 3 for the preparation of a medicament for the treatment of oncological-type diseases.

5. Use according to claim 3 for the preparation of a medicament for the treatment of cancers that respond to cytotoxic activity.
6. Use according to claim 5, in which said cancer is selected from the group consisting of sarcoma, carcinoma, carcinoid, bone cancer, neuroendocrine cancer, lymphoid leukaemia, myeloid leukaemia, monocytic leukaemia, megakaryocytic leukaemia, or Hodgkin's disease.
7. Use of compounds according to claim 1 for the preparation of a medicament for the treatment of diseases related to abnormal angiogenesis.
8. Use according to claim 7, in which said disease is selected from the group consisting of arthritic disease, tumours responding to antiangiogenic activity, metastatic spread, diabetic retinopathy, psoriasis, chronic inflammation, and atherosclerosis.
9. Use according to any one of claims 4 to 8, in which, in the treatment of tumours, said medicament is combined with at least one other antiproliferative drug.
10. Use according to claim 9, in which said antiproliferative drug is selected from the group consisting of alkylating agents; topoisomerase inhibitors; antitubulin agents; intercalating agents; antimetabolites; naturally occurring products such as Vinca alkaloids, epipodophyllotoxins, antibiotics, enzymes, taxanes and anticancer vaccines.
11. Pharmaceutical composition containing as the active ingredient a compound according to claims 1-2 or disclosed in claim 3 in a mixture with a pharmaceutically acceptable excipient or diluent.

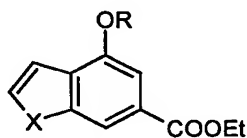
12. Use of the compound with the formula



in which

X is oxygen or sulphur, as an intermediate product for the preparation of compounds according to claims 1-2.

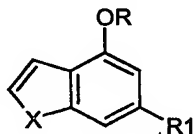
13. Compound with the formula:



in which

X is oxygen or sulphur, R is methyl, or terbutyl-dimethylsilyl.

14. Compound with the formula

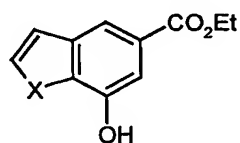


in which

X is oxygen or sulphur, R is methyl, or terbutyl-dimethylsilyl.

R<sub>1</sub> is formyl.

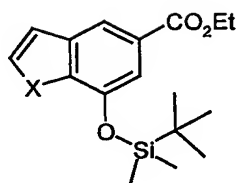
15. Use of the compound with the formula



in which

X is oxygen or sulphur, as an intermediate product for the preparation of compounds according to claims 1-2.

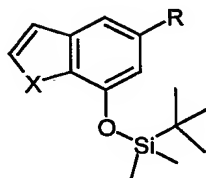
16. Compound with the formula



in which

X is oxygen or sulphur.

17. Compound with the formula



in which

X is oxygen or sulphur.

18. Use of compounds according to claims 13-14 and 16-17 as intermediate products in the preparation of compounds according to claims 1-2.